INFORMATION SHEET

ORDER _____
COUNTY OF TULARE
FOR CLOSURE AND POSTCLOSURE MAINTENANCE
OROSI SOLID WASTE LANDFILL
TULARE COUNTY

The County of Tulare (hereafter Discharger) owns an inactive municipal solid waste landfill (facility) about one mile north of Orosi. The existing 40-acre facility contains one existing unlined waste management unit (Unit) covering approximately nine acres.

On 27 April 2001, the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) adopted Waste Discharge Requirements Order 5-01-097, for the closure and postclosure maintenance of the Unit, which was classified as a Class III facility that accepted a variety of nonhazardous and inert solid wastes in accordance with Title 27, California Code of Regulations, §20005 et seq. (Title 27). The Unit received wastes from the mid-1940s until 1987, when the facility ceased discharge. The waste discharge requirements (WDRs) are being revised to approve an engineered alternative final cover system design, revision of the time schedule for closure, and modification of the detection monitoring program so an inorganic waste constituent release from the Unit can be detected.

The facility is on a relatively topographically flat region of the San Joaquin Valley. Alluvial stream deposits from Sand Creek, which consist of moderately- to highly-permeable, interbedded clay, silt, silty-sand, sand, and occasional gravel, underlie the facility. The estimated hydraulic conductivity of the native materials underlying the Unit range between 1×10^{-3} and 1×10^{-6} centimeters per second (cm/sec).

Surface drainage is southwesterly toward the St. Johns River and Cottonwood Creek in the Alta Hydrologic Area (551.60) of the Tulare Lake Basin. The closest surface water body to the facility is Sand Creek (intermittent), which flows from north to south along the eastern boundary of the facility. The latest available monitoring data indicate that the background surface water of Sand Creek has an electrical conductivity (EC) of approximately 420 micromhos per centimeter (µmhos/cm) and total dissolved solids (TDS) of approximately 330 milligrams per liter (mg/l). The designated beneficial uses of surface waters on the valley floor, as specified in the *Water Quality Control Plan for the Tulare Lake Basin, Second Edition* (Basin Plan), are agricultural supply, industrial service and process supply, water contact and non-contact water recreation, warm fresh water habitat, preservation of rare, threatened and endangered species, and groundwater recharge.

Surface water detection monitoring data indicate that the facility has not impacted the surface water within Sand Creek.

The first encountered groundwater is unconfined and ranges from approximately 42 to 52 feet below the native ground surface. Groundwater elevation ranges from 345 to 349 feet mean sea level, depending on location. The depth to groundwater fluctuates seasonally between approximately five and 10 feet depending on location and has fluctuated up to 45 feet since 1991. Groundwater has been as high as 10 to 15 feet below the native ground surface and has risen within five feet of the base of the wastes (363 feet mean sea level) in the northwestern portion of the Unit in previous years in violation of §20240(c) of Title 27. To ensure that there will be five feet of separation between the base of the wastes and groundwater, the Discharger proposes to excavate incorporated wastes from the northwestern portion of the Unit and place the excavated wastes within the footprint of the remainder of the Unit. The excavation will be filled with clean soils.

The latest monitoring data indicate that background groundwater quality has an electrical conductivity (EC) ranging from approximately 500 to 550 µmhos/cm, and TDS ranging from approximately 370 to 430 mg/l. The general direction of groundwater flow beneath the Unit is toward the southwest. The designated beneficial uses of the groundwater, as specified in the Basin Plan, are domestic and municipal, agricultural, and industrial service and process supply.

Groundwater detection monitoring indicates that the facility has not impacted groundwater with VOCs. The Discharger was informed in a 17 March 2008 letter and memorandum that several inorganic waste constituents appeared to have been tentatively released from the landfill. The aforementioned inorganic waste constituents have been consistently detected in groundwater monitoring wells at concentrations exceeding their respective water quality protection standard since 2005.

The Discharger submitted a technical report on 4 November 2008 to demonstrate that a source other than the landfill was responsible for the release. In Central Valley Water Board staff's (Staff's) 13 January 2009 letter and memorandum review of the report, it was determined that the detection monitoring program (including the monitoring and analytical procedures) appeared inadequate to detect an inorganic waste constituent release from the Unit and needed to be modified. The revised Order will require the Discharger to submit a report describing the modifications made to its detection monitoring program.

The Discharger proposes an engineered alternative final cover system design in its final closure and postclosure maintenance plan. The engineered final cover system consists of the following in ascending order: 1) a two-foot thick foundation layer; 2) a low hydraulic conductivity layer consisting of a reinforced (needle-

punched), geotextile-backed geosynthetic clay liner; and 3) a one-foot thick vegetative layer capable of sustaining native or other suitable plant growth. The

proposed engineered alternative final cover system design has been reviewed by Staff and found to be adequate. The revised WDRs will require that the materials used to construct the final cover system have appropriate physical and chemical properties to ensure containment of discharged wastes over the closure and postclosure maintenance period of the Unit.

The Discharger proposes to commence closure activities to install an engineered alternative final cover system by 9 June 2010 and complete closure by 9 October 2010. The revised WDRs will require the Discharger to complete closure activities by 9 October 2010.

The facility ceased discharge in 1987. Therefore, the provisions of Title 40, Code of Federal Regulations, Parts 257 and 258, “federal municipal solid waste [MSW] regulations” or “Subtitle D” do not apply to the Unit.

Since the facility began operations in the mid-1940s and since no expansion of operations beyond the original waste footprint has occurred or will occur, the facility is categorized as an “existing facility” and the action to revise the WDRs for closure and postclosure maintenance of the Unit is categorically exempt from the provisions of the California Environmental Quality Act (CEQA), Public Resources Code, §21000, et seq., and the CEQA Guidelines, in accordance with §15301 of Title 14, CCR.

VSM:7/16/2009